UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,714	09/07/2000	Hakan Appelquist	09546-011001	6188

26211 7590 09/15/2003

FISH & RICHARDSON P.C.
45 ROCKEFELLER PLAZA, SUITE 2800
NEW YORK, NY 10111

EXAMINER
COOLEY, CHARLES E

ART UNIT	PAPER NUMBER
1723	

DATE MAILED: 09/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/623,714	APPELQUIST ET AL.	
	Examiner	Art Unit	
	Charles E. Cooley	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/21/03* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

OFFICE ACTION

1. This application remains assigned to Technology Center 1700, Art Unit 1723 and the following will apply for this application:

a. Please direct all written correspondence with the correct application serial number for this application to Art Unit 1723.

b. Telephone inquiries regarding this application should be directed to the Technology Center 1700 receptionist at ☎(703) 308-0651 or to the Examiner at ☎(703) 308-0112. Official facsimile correspondence filed before a final office action should be transmitted to ☎(703) 872-9306. Official facsimile correspondence which responds to a final office action should be transmitted to ☎(703) 872-9306.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 AUG 2003 has been entered.

Priority

3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). All of the CERTIFIED copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

Specification

4. The abstract is acceptable.

5. The amended title of the invention is acceptable.

Claim Rejections - 35 U.S.C. § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 11-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 97/13583 in view of GB 2143299.

WO 97/13583 discloses a centrifugal separator comprising a centrifuge rotor 5; a frame member 7; a bearing member 3; a spindle 1 which carries the centrifuge rotor 5 and which is provided in the frame member 7 by means of the bearing member 3 to be rotatable about an axis of rotation and discloses a support device for a centrifuge substantially as claimed including support members comprising a helical spring element 6 having an axis disposed radially with respect to the axis of rotation of the centrifuge 5; and spring element pretensioning means or adjustable stop members 12 or 13. WO 97/13583 does not disclose the recited rubber material in the spaces between the adjacent rounds or turns of the spring element. GB 2143299 discloses a composite spring suitable for use in industrial vibration and shock isolators which is deemed to encompass the field of vibration dampening in rotatable members such as centrifuges (Page 1, lines 119-122); the composite spring including a helical spring element 10 wherein various materials such as a rubber material 15 (Page 1, lines 107-111) is formed between adjacent rounds or turns of the spring element as seen in Figure 1.

The spring element 10 is embedded in and thus fixedly connected to the rubber material 15. It would have been prima facie obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided rubber material in the spaces between the adjacent rounds or turns of the spring element in the spring elements of WO 97/13583 as disclosed by GB 2143299 for the purposes of (a) eliminating the inherently poor damping properties of a metal coil spring which permit high and low frequency vibration from being transmitted; (b) providing ample support while providing good variable damping properties at both low and high frequencies; (c) to control the transmission of vibration throughout the length of the spring; (d) to provide support in any system in which high axial and lateral stiffness is required with effective damping and minimum loss of support with age; (e) to provide the load supporting properties and durability of a metal coil spring while controlling the transmission of vibration by embedding the spring in parallel resilient materials; (f) to provide support in any system in which high stiffness is required with effective damping and minimum loss of support with age; and (g) to protect the coil spring from corrosion or other ambient effects (Page 1, lines 10-20, lines 44-54, and lines 98-121).

With regard to claim 6, the product-by-process limitation in the claim (i.e., the manner in which the spring material is fixedly connected to the rubber material) does not impart patentability to the claims per MPEP 2113.

9. Claims 11-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 97/13583 in view of Rushmore (USP 2,230,069).

WO 97/13583 discloses a centrifugal separator comprising a centrifuge rotor 5; a frame member 7; a bearing member 3; a spindle 1 which carries the centrifuge rotor 5 and which is provided in the frame member 7 by means of the bearing member 3 to be rotatable about an axis of rotation and discloses a support device for a centrifuge substantially as claimed including support members comprising a helical spring element 6 having an axis disposed radially with respect to the axis of rotation of the centrifuge 5; and spring element pretensioning means or adjustable stop members 12 or 13. WO 97/13583 does not disclose the recited rubber material in the spaces between the adjacent rounds or turns of the spring element. Rushmore (USP 2,230,069) discloses a composite spring suitable for use in high speed mechanisms which is deemed to encompass the field of vibration dampening in high speed rotatable members such as centrifuges (Col. 1, lines 1-3) including a helical spring element 1 wherein a rubber material 2 (Col. 1, lines 36-42) is formed between adjacent rounds or turns of the spring element as seen in Figure 4. The spring element 1 is embedded in and thus fixedly connected to the rubber material 2. It would have been prima facie obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided rubber material in the spaces between the adjacent rounds or turns of the spring element in the spring elements of WO 97/13583 as disclosed by Rushmore for the purposes of preventing and/or damping vibrations (Col. 1, lines 36-50 and Col. 2, lines 56-60)

With regard to claim 6, note the patent to Rushmore teaches that the spring material is fixedly connected to the rubber material by vulcanization (Col. 1, lines 39-42 and Col. 3, lines 6-13), however, the product-by-process limitation in the claim (i.e., the manner in which the spring material is fixedly connected to the rubber material) does not impart patentability to the claims per MPEP 2113.

10. Claims 11-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kopf (USP 2,487,343) in view of GB 2143299.

Kopf discloses a centrifugal separator comprising a centrifuge rotor (not shown - col. 2, lines 40-43); a frame member 11; a bearing member 19, 19a, 19b; a spindle 10 which carries the centrifuge rotor and which is provided in the frame member 11 by means of the bearing member to be rotatable about an axis of rotation and Kopf also discloses a support device for a centrifuge substantially as claimed including support members comprising a helical spring element 15 having an axis disposed radially with respect to the axis of rotation of the centrifuge; and spring element pretensioning means or adjustable stop members 17. Kopf does not disclose the recited rubber material in the spaces between the adjacent rounds or turns of the spring element. GB 2143299 discloses a composite spring suitable for use in industrial vibration and shock isolators which is deemed to encompass the field of vibration dampening in rotatable members such as centrifuges (Page 1, lines 119-122); the composite spring including a helical spring including a helical spring element 10 wherein various materials such as a

rubber material 15 (Page 1, lines 107-111) is formed between adjacent rounds or turns of the spring element as seen in Figure 1. The spring element 10 is embedded in and thus fixedly connected to the rubber material 15. It would have been prima facie obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided rubber material in the spaces between the adjacent rounds or turns of the spring element in the spring elements of Kopf as disclosed by GB 2143299 for the purposes of (a) eliminating the inherently poor damping properties of a metal coil spring which permit high and low frequency vibration from being transmitted; (b) providing ample support while providing good variable damping properties at both low and high frequencies; (c) to control the transmission of vibration throughout the length of the spring; (d) to provide support in any system in which high axial and lateral stiffness is required with effective damping and minimum loss of support with age; (e) to provide the load supporting properties and durability of a metal coil spring while controlling the transmission of vibration by embedding the spring in parallel resilient materials; (f) to provide support in any system in which high stiffness is required with effective damping and minimum loss of support with age; and (g) to protect the coil spring from corrosion or other ambient effects (Page 1, lines 10-20, lines 44-54, and lines 98-121).

With regard to claim 6, the product-by-process limitation in the claim (i.e., the manner in which the spring material is fixedly connected to the rubber material) does not impart patentability to the claims per MPEP 2113.

11. Claims 11-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kopf in view of Rushmore (USP 2,230,069).

Kopf discloses a centrifugal separator comprising a centrifuge rotor (not shown - col. 2, lines 40-43); a frame member 11; a bearing member 19, 19a, 19b; a spindle 10 which carries the centrifuge rotor and which is provided in the frame member 11 by means of the bearing member to be rotatable about an axis of rotation and Kopf also discloses a support device for a centrifuge substantially as claimed including support members comprising a helical spring element 15 having an axis disposed radially with respect to the axis of rotation of the centrifuge; and spring element pretensioning means or adjustable stop members 17. Kopf does not disclose the recited rubber material in the spaces between the adjacent rounds or turns of the spring element. Rushmore (USP 2,230,069) discloses a composite spring suitable for use in high speed mechanisms which is deemed to encompass the field of vibration dampening in high speed rotatable members such as centrifuges (Col. 1, lines 1-3) including a helical spring element 1 wherein a rubber material 2 (Col. 1, lines 36-42) is formed between adjacent rounds or turns of the spring element as seen in Figure 4. The spring element 1 is embedded in and thus fixedly connected to the rubber material 2. It would have been prima facie obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided rubber material in the spaces between the adjacent rounds or turns of the spring element in the spring elements of Kopf as

disclosed by Rushmore for the purposes of preventing and/or damping vibrations (Col. 1, lines 36-50 and Col. 2, lines 56-60)

With regard to claim 6, note the patent to Rushmore teaches that the spring material is fixedly connected to the rubber material by vulcanization (Col. 1, lines 39-42 and Col. 3, lines 6-13), however, the product-by-process limitation in the claim (i.e., the manner in which the spring material is fixedly connected to the rubber material) does not impart patentability to the claims per MPEP 2113.

Response to Amendment

12. Applicant's arguments filed 21 AUG 2003 have been fully considered but they are not deemed to be persuasive.

With regard to GB 2143299, Applicant's discussion of the reference on page 6 of the amendment appears misdirected in that the passage from page 1, lines 21 to 38 is deemed to refer to the prior art resilient mountings lacking a metal spring, not the combination of a metal spring embedded in a resilient material which is the inventive concept of GB '299. Applicant appears to be arguing that the prior art teaches just a resilient support without the spring therein and that such an arrangement is not suitable for the centrifuge environment of the instant invention. However, note the base references to WO 97/13583 and Kopf both disclose springs wherein the secondary references to GB '299 and Rushmore teach embedding such springs in a resilient material for the desirable purposes recognized by the prior art. This is the basis for the

103 rejections, not the substitution of spring supports (as in WO '583 and Kopf) with merely a resilient support, i.e, one that lacks a spring member. GB '299 discloses a wide variety of environments in which the inventive spring support could be used including supporting mounts, industrial vibration, and shock isolators which are deemed to encompass a centrifuge environment and in any event is considered analogous art. Applicant asserts that GB '299 "teaches that resilient mounts are subject to degradation when loaded in shear" but this passage is taken from a discussion of the prior art resilient mounts (as noted above) and is not considered to apply to the combination of a metal spring embedded in a resilient material taught by GB '299.

With regard to Rushmore, the teachings therein are deemed applicable for use in high speed mechanisms (of which an internal combustion engine is but one example) which is contemplates a centrifuge environment and in any event is considered analogous art.

Applicant concludes that both GB '299 and Rushmore would not be expected to have along life in a centrifuge, however, Applicant's position on this point is considered to be speculative attorney's argument unsupported by objective technical evidence on the issue. Arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); *In re Pearson*, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974).

With respect to Applicant's arguments that the secondary references to GB 2143299 and Rushmore cannot be bodily incorporated into the primary references of WO 97/13583 and Kopf, the test for obviousness is not whether the features of the reference may be *bodily incorporated* into the other to produce the claimed subject matter but simply what the references make obvious to one of ordinary skill in the art. *In re Bozek*, 163 USPQ 545 (CCPA 1969); *In re Richman*, 165 USPQ 509 (CCPA 1970); *In re Beckum*, 169 USPQ 47 (CCPA 1971); *In re Sneed*, 218 USPQ 385. The suggestion to modify the art to produce the claimed invention need not be expressly stated in one or all of the references used to show obviousness and instead may be an implied suggestion. *Cable Electric Products., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1025, 226 USPQ 881, 886 (Fed. Cir. 1985); *In re Sernaker*, 217 USPQ 1 (Fed. Cir. 1983); *In re Nilssen*, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988). It is not necessary that the references actually suggest, expressly or in so many words, the changes or improvements that applicant has made. Rather, the test for combining references is what the combined teachings of the references as a whole would have suggested to those of ordinary skill in the art. *In re Sheckler*, 168 USPQ 716 (CCPA 1971); *In re McLaughlin*, 170 USPQ 209 (CCPA 1971); *In re Young*, 159 USPQ 725 (CCPA 1968); *Cable Elec.*, 226 USPQ at 886-87. The motivation to combine can arise from the knowledge that the prior art elements will perform their expected functions to achieve their expected results when combined for their common known purpose. *Miles Lab.,*

Inc. v. Shandon Inc., 27 USPQ2d 1123, 1128 (Fed. Cir. 1993). In the instant application, the secondary references to GB 2143299 and Rushmore make obvious or suggest to one of ordinary skill in the art the provision of providing rubber material in the spaces between the adjacent rounds or turns of a spring element for the beneficial purposes of preventing and/or damping vibrations in the machinery to which the spring elements are coupled.

While there must be some suggestion or motivation for one of ordinary skill in the art to combine the teachings of references, it is not necessary that such be found within the four corners of the references themselves; a conclusion of obviousness may be made from common knowledge and common sense of the person of ordinary skill in the art without any hint or suggestion in a particular reference. *In re Bosek*, 416 F.2d 1385, 163 USPQ 545 (CCPA 1969). Further, in an obviousness assessment, skill is presumed on the part of the artisan, rather than the lack thereof. *In re Sovish*, 769 F.2d 738, 226 USPQ 771 (Fed. Cir. 1985).

With respect to the applied references, the examiner has considered all of the disclosure of each reference for what it would have fairly taught one of ordinary skill in the art. *In re Boe*, 355 F.2d 961, 148 USPQ 507 (CCPA 1966). Additionally, the specific teachings of each reference and the inferences which one skilled in the art would have reasonably been expected to draw from the disclosure has been taken into account. *In re Preda*, 401 F.2d 825, 159 USPQ (CCPA 1968). On the basis of the knowledge and level of skill in the art at the time of applicant's invention, as reflected by

the applied references, the examiner concludes that the rejections under 35 USC 103 are well founded.

Applying the test for obviousness set forth in *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981), which is what the combined teachings of the references would have suggested to those of ordinary skill in the art, the examiner concludes that one having ordinary skill in the art would have found it prima facie obvious to have provided rubber material in the spaces between the adjacent rounds or turns of the spring elements in WO 97/13583 or Kopf in view of the teachings of GB 2143299 and Rushmore.

With respect to the argument that the prior art must contain something to suggest the desirability of the combination, it is noted that to justify combining reference teachings in support of a rejection under 35 USC 103, it is not necessary that a device shown in one reference be capable of being physically inserted into the device shown in the other or that the prior art suggest expressly the changes or possible improvements the applicant has made. It is only necessary that knowledge clearly present in the prior art was applied. *In re Keller,* supra; *In re Sernaker*, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983). The examiner has applied only knowledge clearly present in the prior art as evidenced by GB 2143299 and Rushmore in the rejections of the pending claims and the rejections are thus proper.

Since the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been prima facie

obvious at the time the invention was made, to a person having ordinary skill in the art, from the combined teachings of the references, the rejections under 35 USC 103(a) are considered proper.

Response to Declaration

13. The declaration under 37 CFR 1.132 filed 21 AUG 2003 is insufficient to overcome the rejection of claims 11-20 based upon the prior art rejections as set forth in the last Office action because:

It refers only to the system described in the above referenced application and not to the individual claims of the application. Thus, there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. See MPEP § 716.

Applicant discusses operational parameters of a centrifuge such as "high rotational speeds", the "supporting members have to be very stiff" and "able to dampen all the energy", the thickness of the spring elements, the amount of rubber material available to absorb the high energy, and the frequency and degree of spindle movement. Such statements in the declaration are not germane to a showing of nonobviousness because it is well settled that features not claimed may not be relied upon in support of patentability. *In re Self*, 671 F.2d 1344, 213 USPQ 1 (CCPA 1982). Although a claim should be interpreted in light of the specification disclosure, it is generally considered improper to read limitations contained in the specification into the

claims. See *In re Prater*, 415 F.2d 1393, 162 USPQ 541 (CCPA 1969) and *In re Winkhaus*, 527 F.2d 637, 188 USPQ 129 (CCPA 1975), which discuss the premise that one cannot rely on the specification to impart limitations to the claim that are not recited in the claim. Although such parameters, if claimed, would not appear to define over the prior art, Applicant's statements in the declaration are not commensurate in scope with the claims.

Although Applicant's statements in section (4) of the declaration are considered speculative in nature and therefore unconvincing opinion evidence, assuming, *arguendo*, that such statements are factual, wouldn't the rubber material of the instant invention fall victim to the deleterious effects mentioned in section (4)? Applicant gives no evidence that the particular materials used in the prior art would necessarily degrade as Applicant contends while the materials used in the instant invention is free of such maladies Furthermore, it is considered reasonable that one skilled in the art could choose a particular resilient material, such as a particular grade of rubber, that would be resistant to the degradation mentioned by Applicant, as least for an acceptable amount of operational cycles. Furthermore, note GB '299 teaches that different types of resilient materials can be employed in the support as a function of the intended use (Page 1, line 107-110) and the resilient material are chosen such that the optimum damping configuration for a given situation is obtained (Page 1, lines 87-90). Therefore, the four corners of GB' 299 suggest that various materials are employed in the combination spring and resilient member as a function of the environment in which

the member is employed and could thus could be readily adapted to avoid the afflictions mentioned in section (4) of the declaration.

In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness gained from the teachings of the prior art.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited prior art shows composite spring members.

15. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Charles Cooley whose telephone number is ☎ (703) 308-0112.

17. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1700 receptionist whose telephone number is ☎ (703) 308-0651.

Dated: **10 September 2003**

Charles Cooley
Primary Examiner
Art Unit 1723